[285] The diver holds onto another line to which is tied an open-weave palm leaf basket for the oysters; sometimes the diver has the oyster basket tied to his waist or around his neck and has the line tied to his body. When the diver is ready to come up, he gives several tugs on the rope. Thus the diver does not have to waste his valuable energy in swimming up or down. When he first reaches the bottom, he attempts to go out perpendicularly from the boat, frantically plucking all the oysters he can see before his air gives out. The diver usually crawls on one hand and one foot, using the other foot to propel himself and his free hand to collect the oysters.

The divers wear a horn noseclip similar to a clothespin; this keeps the water out of their noses and enables them to hold their breath longer. Sometimes a diver will stuff cotton or beeswax into his ears to keep the water out. A set of leather finger thimbles protects his fingers from coral and other sharp objects; he wears only a loin cloth. This is the equipment universally used in the Persian Gulf, whether the diver is out of Kuwait, Bahrein, the Trucial Coast, or Persia. These divers wear no goggles and many have impaired vision from trachoma, so their efficiency is cut down considerably. It is strange that the Arabs have not added at least eye socket goggles, which the South Sea Island and Philippine pearl divers have eagerly accepted.

Alan Villiers states that the Kuwait pearl divers make ten consecutive dives and then rest while a "substitute" makes ten; these two divers have the same attendant.[24] Divers in other parts of the Gulf work continuously, taking a rest all together at certain predetermined times, sometimes corresponding with prayer-time.

The diver stays under about a minute, then rests for two or three.[25] Ten dives would consume about three-quarters of an

[24] A. Villiers, *op. cit.*, p. 392.

[25] The average length of time that a diver stays under water has long been a controversial question. Alan Villiers (*op. cit.*, p. 392), who spent two months with the Kuwait pearling fleet, states that the divers averaged about a minute, ranging from 40 to 90 seconds. O'Shea (*op. cit.*, p. 137), spending some time among the Trucial coast pearlers, states that divers there remain under water from 40 to 75 seconds, also averaging about one minute. Whitelock (*op. cit.*, p. 43), who visited the Trucial coast pearl fisheries one hundred years ago, stated that the divers averaged about 40 seconds under water, but that he never saw them remain over a minute. Hugh Smith (*op. cit.*, p. 183) states that in the Ceylon fisheries the Arabs are the best divers, staying down from 60 to 75 seconds, with a normal maximum of 90 seconds, and that there is an authentic case of an Arab staying under 109 seconds in seven fathoms of water. In any

Fishweirs

[285] 226 The largest catch of fish on the Persian Gulf coast of Saudi Arabia and Bahrein Island comes from huge weirs, made from the stems of palm trees. The Arabs build these fencelike traps by driving a steel bar into the mucky bottom and inserting a palm stem into the hole as they withdraw the bar (Fig. 13); the stems are spaced close enough so that no fish can pass through and are tied together. There are two types of weir: a funnel type and a spear type.

[133] In the Persian Gulf the maximum tidal drop is about eight feet. The fishweirs are built so that at low tide there is only a few feet of water on the offshore end of the weir. Where the ebbing tide sets up a definite current, the funnel type (Fig. 7) is used, placed so that the current washes through the trap. The fish carried along in the current are forced through the funnel into the stockade of the weir, the entrance of which is out of water at low

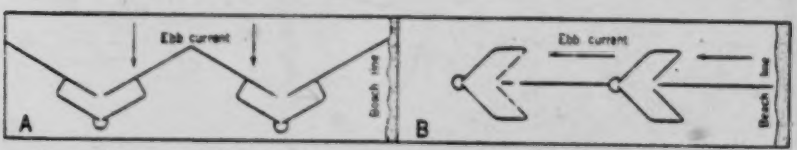

Fig. 7.—Diagrams showing the two types of fishweir. The funnel type (A) catches fish that are washed into the enclosure on an ebbing tide. The spear type (B) is most effective in the case of fish moving parallel to the shore, since the ebbing tide causes only a slight current. Both types are found either singly or in a row, as illustrated.

tide. These weirs are usually built with the central axis parallel to the shore; however, in Tarut Bay many are not near any shore but are set across tidal currents in shallows. Sometimes several traps are set in a row. It is not exceptional for the ebb current in Tarut Bay to reach three knots in some places.

Where the tidal ebb sets up merely a slight motion, the spear type of weir (Fig. 7) is used; the axis is oriented at right angles to the shore. As with the funnel type, several weirs are sometimes set in a row. Most of the fishweirs on Bahrein Island are of this type. The fish swim inshore on a flooding tide and out on an ebbing tide, and thus tend to work into the weirs; these traps are most effective in catching schools of fish swimming parallel to the shore. This type of weir is less effective than the funnel type, because its action is less positive.

Thus when the tide has gone out, the fisherman has a stockade of fish. He enters this stockade, or "head" of the weir, which is 10 to 15 feet in diameter (Fig. 8), with a net hitched to two 3-foot palm-stem poles. Holding

[Text continued on p. 391]